

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JUNICHI YAMADA, MITUO SUGIYAMA
and TADASHI IIHARA

Appeal No. 1997-2437
Application No. 08/230,378

HEARD: June 6, 2000

Before KIMLIN, OWENS and DELMENDO, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-8, all the claims remaining in the present application. Claim 1 is illustrative:

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$$\begin{array}{c} \text{H} \\ | \\ -\text{C}- \\ | \\ \text{C}_6\text{H}_4 \\ | \\ (\text{SO}_3\text{X})_n \end{array} \begin{array}{c} \text{CH}_2 \\ | \\ \text{C}-\text{H} \\ | \\ \text{C}_6\text{H}_4 \\ | \\ (\text{SO}_3\text{X})_m \end{array} \cdots \text{(I)}$$

In addition to the admitted prior art found in appellants' specification, the examiner relies upon the following references as evidence of obviousness:

Appellants' claimed invention is directed to a dispersant comprising a polystyrenesulfonic acid having at least 70% of the terminals of the polymer chains having an indane ring of the recited formula. According to appellants, since

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"conventional polystyrene sulfuric acid polymers lack the recited indane ring content of the subject polymers . . . they do not result in dispersions having comparable stability to dispersions obtained using the subject polymers" (paragraph bridging pages 5 and 6 of Brief).

Appealed claims 1-8 stand rejected under 35 U.S.C. § 103 as being unpatentable over appellants' acknowledged prior art, considered alone, or in combination with Yax and Young.

Upon careful consideration of the opposing arguments presented on appeal, we agree with appellants that the examiner has not established a prima facie case of obviousness for the claimed subject matter. Accordingly, for essentially the reasons expressed by appellants in their Brief, we will not sustain the examiner's rejection.

It is the examiner's position that since appellants' specification acknowledges that it was known in the art to produce polystyrenesulfonic acid as a dispersant, and it was known in the art, as evidenced by the secondary references, to use a cationic catalyst to polymerize styrene monomers, "[p]resence of indane terminals would be obvious in PSA because prior art polymers of styrene have been prepared by

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use of cationic catalyst" (sentence bridging pages 2 and 3 of Answer). From our understanding, it is the examiner's rationale that it would have been obvious to form polystyrenesulfonic acid by cationic polymerization of styrene and, thereby, necessarily or inherently obtain the claimed polystyrenesulfonic acid having indane ring terminals.

The flaw in the examiner's reasoning is that the examiner has not established on this record that the mere cationic polymerization of styrene, without more, necessarily produces the claimed indane ring. First, as pointed out by appellants, the examiner has not pointed to any references which disclose a polystyrenesulfonic acid having an indane ring. Secondly, appellants persuasively argue that "many different factors dictate the end product of a polymerization process or catalytic reaction, not merely the general type of catalytic reaction utilized" (page 13 of Brief). Specifically, appellants urge that "[f]actors which affect the outcome of polymerization processes include by way of example the specific catalysts, the reaction temperature and pressure, the duration of reaction, the solvents used in the reaction process, the concentration of the monomers contained in the

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polymerizable mixture, among other factors" (sentence bridging pages 13 and 14 of Brief). Significantly, the examiner has not addressed this cogent point made by appellants in any way.

Since we find that the examiner has not established a prima facie case of obviousness, it is unnecessary for us to evaluate the probative value of appellants' declaration evidence.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed.

REVERSED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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TERRY J. OWENS)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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ROMULO H. DELMENDO)	
Administrative Patent Judge)	

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